

1. A method of operating a probe device for testing a broadband wireless system, the method comprising:

receiving an instruction to execute a plurality of tests;

executing the plurality of tests to measure performance of the broadband

5 wireless communication system based on the instruction;

determining performance information from the plurality of tests; and

storing the performance information in a memory of the probe device.

10 2. The method of claim 1 wherein the probe device is located in a sector of the broadband wireless system.

3. The method of claim 1 wherein the probe device is located in a customer area of the broadband wireless system.

15 4. The method of claim 1 wherein one of the plurality of tests comprises a web surfing test.

5. The method of claim 4 wherein the web surfing test comprises:

transferring a request for a web page; and

20 receiving the web page.

6. The method of claim 1 wherein one of the plurality of tests comprises a bulk file transfer test.

25 7. The method of claim 6 wherein the bulk file transfer test comprises:

generating and transmitting a request to retrieve files from a file server;

and

receiving the files from the file server.

30 8. The method of claim 6 wherein the bulk file transfer test comprises transmitting files to a file server.

9. The method of claim 1 wherein one of the plurality of tests comprises a ping test to measure delay.

10. The method of claim 1 wherein one of the plurality of tests comprises a raw channel capacity test.

11. The method of claim 10 wherein the raw channel capacity test comprises a bit-error-rate test.

12. The method of claim 1 wherein one of the plurality of tests comprises a forward error correction test.

13. The method of claim 1 wherein one of the plurality of tests comprises an out of lock indicator test.

14. The method of claim 13 wherein the out of lock indicator test comprises determining a presence of a clean Quadrature Amplitude Modulation signal.

15. The method of claim 1 further comprising:  
transmitting the performance information from the probe device.

16. The method of claim 1 further comprising:  
retrieving the performance information from the memory.

17. The method of claim 1 wherein the performance information comprises delay.

18. The method of claim 1 wherein the performance information comprises download speed.

19. The method of claim 1 wherein the performance information comprises number of dropped packets.

20. The method of claim 1 wherein the performance information comprises number of acknowledgement packets.

21. A software product for operating a probe device for testing a broadband wireless system, the software product comprising:

probe device software operational when executed by a processor to direct the processor to receive an instruction to execute a plurality of tests, execute the plurality of tests to measure performance of the broadband wireless system based on the instruction, determine performance information from the plurality of tests, and store the performance information in a memory of the probe device; and

a software storage medium operational to store the probe device software.

22. The software product of claim 21 wherein the probe device is located in a sector of the broadband wireless system.

23. The software product of claim 21 wherein the probe device is located in a customer area of the broadband wireless system.

24. The software product of claim 21 wherein one of the plurality of tests comprises a web surfing test.

25. The software product of claim 24 wherein the probe device software is operational when executed by the processor to direct the processor to transfer a request for a web page and receive the web page.

26. The software product of claim 21 wherein one of the plurality of tests comprises a bulk file transfer test.

27. The software product of claim 26 wherein the probe device software is operational when executed by the processor to direct the processor to generate and transmit a request to retrieve files from a file server and receive the files from the file server.

28. The software product of claim 26 wherein the probe device software is operational when executed by the processor to direct the processor to transmit files to a file server.

29. The software product of claim 21 wherein one of the plurality of tests comprises a ping test to measure delay.

30. The software product of claim 21 wherein one of the plurality of tests comprises a raw channel capacity test.

31. The software product of claim 30 wherein the raw channel capacity test comprises a bit-error-rate test.

32. The software product of claim 21 wherein one of the plurality of tests comprises a forward error correction test.

33. The software product of claim 21 wherein one of the plurality of tests comprises an out of lock indicator test.

34. The software product of claim 33 wherein the probe device software is operational when executed by the processor to direct the processor to determine a presence of a clean Quadrature Amplitude Modulation signal.

35. The software product of claim 21 wherein the probe device software is operational when executed by the processor to direct the processor to transmit the performance information from the probe device.

5 36. The software product of claim 21 wherein the probe device software is operational when executed by the processor to direct the processor to retrieve the performance information from the memory.

10 37. The software product of claim 21 wherein the performance information comprises delay.

15 38. The software product of claim 21 wherein the performance information comprises download speed.

20 39. The software product of claim 21 wherein the performance information comprises number of dropped packets.

25 40. The software product of claim 21 wherein the performance information comprises number of acknowledgement packets.

30 41. A probe device for testing a broadband wireless system, the probe device comprising:

an interface configured to transfer an instruction to execute a plurality of tests; and

25 a processor connected to the interface and configured to receive the instruction, execute the plurality of tests to measure performance of the broadband wireless system based on the instruction, determine performance information from the plurality of tests, and store the performance information in a memory of the probe device.

42. The probe device of claim 41 wherein the probe device is located in a sector of the broadband wireless system.

43. The probe device of claim 41 wherein the probe device is located in a customer area of the broadband wireless system.

44. The probe device of claim 41 wherein one of the plurality of tests comprises a web surfing test.

45. The probe device of claim 44 wherein:

the interface is configured to transfer a request for a web page from the processor and transfer the web page to the processor; and

the processor is configured to transferring the request for the web page and receive the web page.

46. The probe device of claim 41 wherein one of the plurality of tests comprises a bulk file transfer test.

47. The probe device of claim 46 wherein:

the processor is configured to generate and transmit a request to retrieve files from a file server and receive the files from the interface; and

the interface is configured to transfer the request from the processor to the file server and transfer the files from the file server to the processor.

48. The probe device of claim 47 wherein:

the processor is configured to transmit files to the interface; and

the interface is configured to transfer the files from the processor to the file server.

49. The probe device of claim 41 wherein one of the plurality of tests comprises a ping test to measure delay.

50. The probe device of claim 41 wherein one of the plurality of tests comprises a raw channel capacity test.

5 51. The probe device of claim 50 wherein the raw channel capacity test comprises a bit-error-rate test.

52. The probe device of claim 41 wherein one of the plurality of tests comprises a forward error correction test.

10

53. The probe device of claim 41 wherein one of the plurality of tests comprises an out of lock indicator test.

15

54. The probe device of claim 53 wherein the processor is configured to determine a presence of a clean Quadrature Amplitude Modulation signal.

20

55. The probe device of claim 41 wherein:  
the processor is configured to transmit the performance information; and  
the interface is configured to transfer the performance information from the processor to the probe device.

56. The probe device of claim 41 wherein the processor is configured to retrieve the performance information from the memory.

25

57. The probe device of claim 41 wherein the performance information comprises delay.

58. The probe device of claim 41 wherein the performance information comprises download speed.

30

59. The probe device of claim 41 wherein the performance information comprises number of dropped packets.

60. The probe device of claim 41 wherein the performance information comprises  
5 number of acknowledgement packets.

09/24/2014 10:47:04